

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT

Site Name: North Pole Refinery

Date: July 13, 1984

EPA ID # ~~AK-D083350389~~ AKD000850701

Location: .25 Richardson Highway

City: North Pole

State: Alaska

Site Description and History:

The North Pole Refinery is an active facility which began operations in 1977. The refinery was purchased by MAPCO Petroleum Co. in 1980 from Earth Resources Company of Alaska. The refinery produces jet fuel, kerosene, diesel fuel, and turbine fuel. North Pole Refinery obtains its crude oil from the Alyeska pipeline. According to the Ecology & Environment site inspection report (10/80), crude oil may be refined directly from the pipeline and/or may be stored in storage tanks and refined at a later date. Unused crude oil may be returned to the pipeline. The North Pole Refinery uses various oil additives during distillation. Ethylene glycol and propylene glycol are added to the refinery system as heat transfer mediums. Additives are used to adjust the pH, and water removal chemicals are added to inhibit corrosion (personal conversation with James Boltz, Manager, 7/84). Mr. Boltz stated that the refinery does not generate a significant hazardous waste. Residual oil "bottoms" that remain after distillation are returned (reinject) to the Alyeska pipeline. Waste oil from machinery is collected and reinjected back into the Alyeska pipeline. Refinery waste oil and waste fuels are re-refined. Solid refuse is landfilled at the Fairbanks North Star Borough Landfill (personal conversation, James Boltz, 7/84). The facility has an SPCC plan and storage tanks are surrounded by adequate berms.

Physical Setting:

The refinery is situated on level terrain and is approximately 3/4 mile from the Tanana River. The area within a mile radius of the site



is heavily forested with a population of approximately 300. The site covers an area of approximately 20 acres. According to James H. Boltz, the depth of the four refinery water wells is approximately 150 feet.

Waste Summary:

The North Pole Refinery does not appear to be generating any hazardous wastes. The wastes that are generated, waste oil (270 gallons/month), distillation bottoms are injected into the Alyeska pipeline. Any waste fuels are re-refined (personal conversation, James Boltz, 7/84).

Windshield Inspection Summary:

Site Perimeter Survey 6/21/84:

The North Pole Refinery is a small to medium sized refinery (approximately 20 acres) with 500,000 gallons of oil storage capacity. The site appeared to be in good condition and clean on the surface. There was a lot of construction activity. North Pole Refinery is increasing its storage capacity. The facility is completely fenced.

Site Status:

Priority Assessment: Low

North Pole Refinery does have hazardous substances on site (anti-corrosion inhibitors, pH adjuster, ethylene glycol, propylene glycol). These substances are properly controlled and stored in tanks. Waste oil and refinery wastes are either re-refined or re-injected back into the Alyeska pipeline. Scrap metal and refuse is sent to the Fairbanks North Star Borough Landfill (personal conversation, James H. Boltz, 7/84).

Data Gaps:

The following is a listing of data gaps:

- o Past on site disposal practices (Earth Resources Company)
- o An inventory of all hazardous substances on site
- o Records of past spills.

The North Pole Refinery stores oil and is presently increasing its oil storage capacity. All new storage areas should comply with SPCC guidelines. This facility does not store hazardous wastes. Whatever waste are generated are either re-refined or injected back into the pipeline.

Recommendations:

The following is a listing of recommendations:

- o Perform regular SPCC inspections
- o Perform site inspection to fill in the above data gaps.

POTENTIAL HAZARDOUS WASTE SITE

State/Site

PRELIMINARY ASSESSMENT

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PART I - SITE INFORMATION AND ASSESSMENT

II. SITE NAME AND LOCATION

SITE NAME North Pole Refinery		STREET ROUTE NO. .25 Richardson Highway			
CITY North Pole	STATE AK	ZIP CODE 99705	COUNTY Fairbanks	CODE 090	CONG 00
COORDINATES	LATITUDE 64 44 40	LONGITUDE 147 20 40			

DIRECTIONS TO SITE

From Fairbanks continue south on Richardson Highway to North Pole. Take old Richardson Highway exit. Facility is approximately 1 mile on right.

III. RESPONSIBLE PARTIES

OWNER MAPCO Petroleum, Inc.	STREET 1800 S. Baltimore		
CITY Tulsa	STATE OK	ZIP CODE 74101	TELEPHONE NUMBER (918) 584-4471
OPERATOR		STREET	
CITY		STATE	ZIP CODE
			TELEPHONE NUMBER () -

TYPE OF OWNERSHIP:

<input checked="" type="checkbox"/> PRIVATE	<input type="checkbox"/> FEDERAL	STATE	COUNTY
<input type="checkbox"/> MUNICIPAL	<input type="checkbox"/> OTHER	UNKNOWN	
OWNER OPERATOR NOTIFICATION ON FILE			
RCRA3001	DATE: / /	CERCLA103C	DATE: / /
			<input checked="" type="checkbox"/> NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

ON SITE INSPECTION	BY
<input checked="" type="checkbox"/> YES	Ecology & Environment, Inc.
<input type="checkbox"/> NO	
DATE: 8/11/80	
SITE STATUS	
<input checked="" type="checkbox"/> ACTIVE	<input type="checkbox"/> INACTIVE
<input type="checkbox"/> UNKNOWN	
YEARS OF OPERATION	
FROM: 1977	TO: Present
DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN OR ALLEGED	
waste oil	propylene glycol
ethylene glycol	misc. fuels waste

DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

There is a potential for a fire and/or explosion at the refinery.

V. PRIORITY ASSESSMENT

PRIORITY FOR INSPECTION			
<input type="checkbox"/> HIGH	<input type="checkbox"/> MEDIUM	<input checked="" type="checkbox"/> LOW	<input type="checkbox"/> NONE

VI. INFORMATION AVAILABLE FROM

CONTACT Glenn Miller	AGENCY Alaska Dept. of Environ. Conservation	TELEPHONE NUMBER (907) 465-2666
PERSON RESPONS. FOR ASSESSMENT Scott S. Ferris	ORGANIZATION Tetra Tech, Inc.	TELEPHONE NUMBER (206) 455-3838
		DATE 7/15/84

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PHYSICAL STATES		WASTE QUANTITY AT SITE		WASTE CHARACTERISTICS	
SOLID	SLURRY	TONS		TOXIC	SOLUBLE
POWDER	X LIQUID	CUBIC YARDS		CORROSIVE	INFECTIOUS
SLUDGE	GAS	NO OF DRUMS	5	RADIOACTIVE	X FLAMMABLE
OTHER				PERSISTENT	IGNITABLE
				HIGHLY VOLATILE	X EXPLOSIVE
				REACTIVE	NOT APPLIC
				INCOMPATIBLE	

SUBSTANCE NAME		GROSS AMT.	UNITS	COMMENTS
SLU	SLUDGE	270	GA	not stored, injected in- to pipeline
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEM.			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES					
	SUBSTANCE NAME	CAS #	STORAGE DISPOSAL	CONC.	UNITS

FEEDSTOCK NAME	CAS #		
Ethylene glycol	--		
Propyl glycol	--		
Crude oil			

EPA Region X site file
Ecology & Environment site inspection report 8/80
Site perimeter survey (Scott S. Ferris 6/80)
Personal conversation with James Boltz, Plant Manager (Scott S. Ferris 7/84)

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PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS**III. HAZARDOUS CONDITIONS AND INCIDENTS****GROUNDWATER CONTAMINATION****OBSERVED DATE:** / /**POTENTIAL****POPULATION POTENTIALLY AFFECTED:****ALLEGED**

NA

SURFACE WATER CONTAMINATION**OBSERVED DATE:** / /**POTENTIAL****POPULATION POTENTIALLY AFFECTED:****ALLEGED**

There are berms around the facility's oil storage area.

X CONTAMINATION OF AIR**OBSERVED DATE:** / /**X POTENTIAL****POPULATION POTENTIALLY AFFECTED:** 200**ALLEGED**

Potential for air contamination during oil refining process.

FIRE/EXPLOSIVE CONDITIONS**OBSERVED DATE:** / /**X POTENTIAL****POPULATION POTENTIALLY AFFECTED:** 30**ALLEGED**

There is the potential for fire and explosions due to the storage of oil and petroleum products.

X DIRECT CONTACT**OBSERVED DATE:** / /**POTENTIAL****POPULATION POTENTIALLY AFFECTED:****ALLEGED**

The site is secured. People inadvertently coming into contact with the site is unlikely.

CONTAMINATION OF SOIL**OBSERVED DATE:** / /**POTENTIAL****AREA POTENTIALLY AFFECTED:**

(acres)

ALLEGED

NA

DRINKING WATER CONTAMINATION**OBSERVED DATE:** / /**POTENTIAL****POPULATION POTENTIALLY AFFECTED:****ALLEGED**

NA

WORKER EXPOSURE/INJURY**OBSERVED DATE:** / /**POTENTIAL****WORKERS POTENTIALLY AFFECTED:****ALLEGED**

NA

POPULATION EXPOSURE/INJURY**OBSERVED DATE:** / /**POTENTIAL****POPULATION POTENTIALLY AFFECTED:****ALLEGED**

NA

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

III. HAZARDOUS CONDITIONS AND INCIDENTS (CONTINUED)

DAMAGE TO FLORA

OBSERVED DATE: / /

POTENTIAL
ALLEGED

NA

DAMAGE TO FAUNA

OBSERVED DATE: / /

POTENTIAL
ALLEGED

NA

CONTAMINATION OF FOOD CHAIN

OBSERVED DATE: / /

POTENTIAL
ALLEGED

NA

UNSTABLE CONTAINMENT OF WASTES
POPULATION POTENTIALLY AFFECTED:

OBSERVED DATE: / /

POTENTIAL
ALLEGED

NA

DAMAGE TO OFFSITE PROPERTY

OBSERVED DATE: / /

POTENTIAL
ALLEGED

NA

CONTAMINATION OF SEWERS, STORM
DRAINS, WWTPs

OBSERVED DATE: / /

POTENTIAL
ALLEGED

NA

ILLEGAL UNAUTHORIZED DUMPING

OBSERVED DATE: / /

POTENTIAL
ALLEGED

NA

DESCRIPTION OF ANY OTHER KNOWN POTENTIAL OR ALLEGED HAZARDS

NA

III. TOTAL POPULATION POTENTIALLY AFFECTED 30-300

IV. COMMENTS

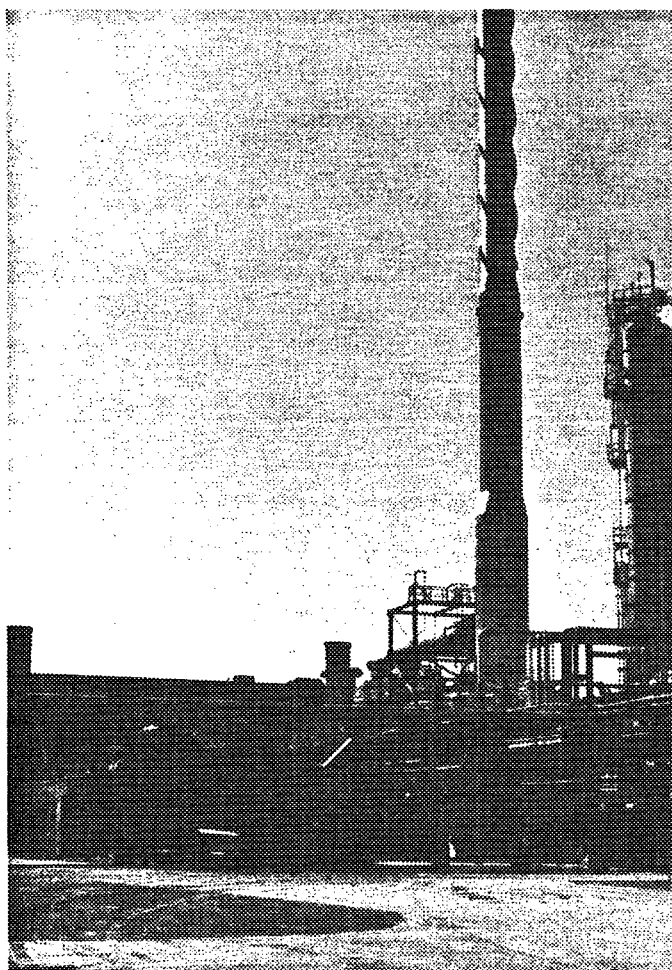
The refinery does not store any waste oil. Once it is collected/generated it is injected into the Alyeska pipeline.

V. SOURCES OF INFORMATION

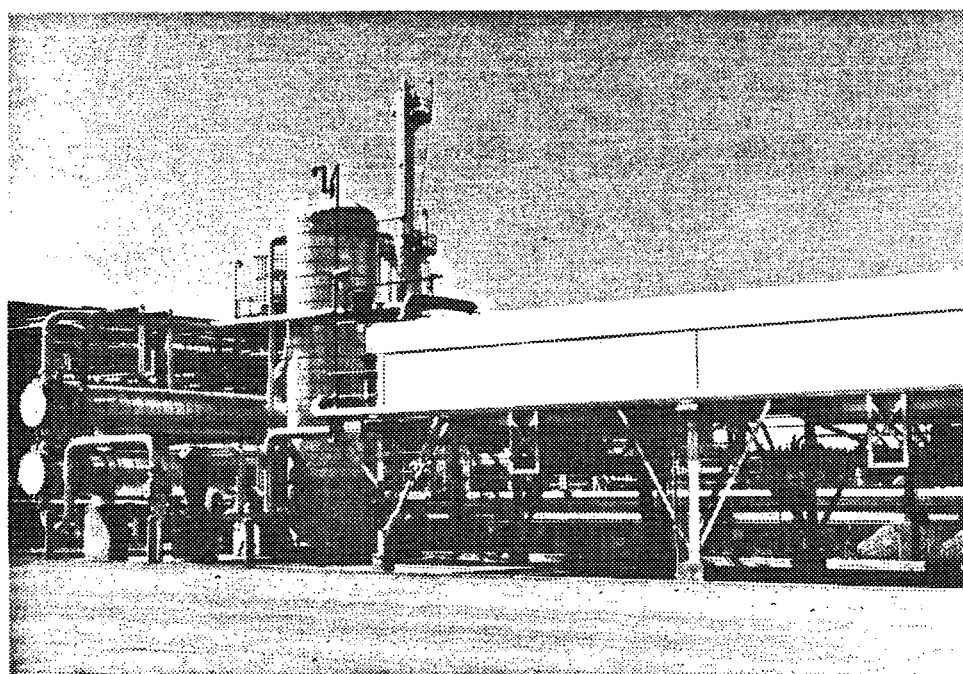
EPA Region X site files

Ecology & Environment site inspection report 8/80

Site Perimeter Survey (Scott S. Ferris 6/84)



North Pole Refineries,
North Pole, AK 6/21/84



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